2008 S.T.A.R.

(Sustainability & Trends Assessment Report)

for the

City of Bloomington

presented by

B.C.O.S.

(The City of Bloomington Commission on Sustainability)

Contents

PREFACE

The City of Bloomington Commission on Sustainability (BCOS) was created by the City of Bloomington Common Council Ordinance 05-15 on May 4, 2005 "in the interest of fostering sustainable local businesses, environmental integrity and social equity…". Its mission is to promote the "sustainable socio-environmental-economic well-being of Bloomington and all its inhabitants." Toward this mission, BCOS seeks to:

- Build community awareness of and enthusiasm for sustainable practices;
- Foster implementation of practical initiatives to improve our community's sustainability;
- Measure, monitor, and report on our community's progress toward sustainability, and;
- Educate and advise our community's leaders on sustainable initiatives and outcomes.

To provide a status report and monitor progress toward sustainability goals, BCOS develops and presents an annual "Sustainability Assessment". This year's edition, the **2008 Sustainability Trends and Assessment Report (STAR)**, focuses on topics related to basic human needs and/or currently enjoying special attention from local legislative bodies and City of Bloomington departments. The categories covered are:

1. Employment
2. Energy
3. Food
4. Health
5. Housing
6. Transportation
7. Waste
8. Water

To help determine present status and trends year to year with respect to sustainability, BCOS selected an objective and one or more indicators centered on the following (3 E's):

- The "E"conomy
- The "E"nvironment
- Social "E"quity

This report is comprised of only a partial list of possible categories and indicators. Other areas common to reports such as this one address Education, Environmental Quality, Public Safety, and Recreation. Future BCOS STAR reports may well include additional categories, as well as new indicators in current and new categories.

Lack of resources (human, temporal, financial) has limited the breadth and depth of this report. Another limiting factor has been the absence of data for some of the categories and indicators, either because the information is not collected at all or because it could not be teased out of county and state-based data.

BCOS welcomes and encourages readers of this report to let us know your reactions and ideas for improving future assessments.

GENERAL STATISTICS

Below are some background data that will be referenced throughout the report. Population statistics are from the most recent U.S. census, as reported by the City of Bloomington Census Data Center.

- Population: 69,291 (60,503 of which are between the age of 18 and 65; does not include IU students)
- Average Household Size (number of total individuals living in a single home/apartment): 2.09
- Average Family Size (number of related individuals): 2.76
- Total Housing Units: 28,400 – of which 26,468 were occupied (93.2%)
- Number of Owner-Occupied Homes: 9,341 (with median home value of $126,000)
- Number of Renter-Occupied Homes: 17,127
- Median Household Income: $25,377
- Median Family Income: $50,054
- Per-Capita Income: $16,481
- Number of Families Below Poverty Level: 1,083 (10.3% of Population)
- Number of Individuals Below Poverty Level: 16,385 (29.6 % of Total Population)

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CATEGORY: EMPLOYMENT

Indicators: **Unemployment Rate**
Percentage of Jobs Paying at least Local Living Wage
Number of Green Jobs

Employment relates to sustainability in a number of ways. Productively employed citizens contribute to the City of Bloomington's tax base and thus enable infrastructure improvements and the delivery of necessary services. Employees earning a *living wage* provide more security for themselves and their families, are better able to maintain their residences, and, because they do not need second jobs, are in a better position to donate their time and talents to volunteer activities and civic participation. Also, as health insurance is tied so often to employment, workers are more likely to enjoy that benefit and the better health outcomes that follow from it, and they are less likely to depend on public services. *Green jobs* refer most often to those that result in improvements to the natural environment, such as the development of technologies that reduce carbon emissions or dependence on fossil fuels, but an obvious consideration may be workplace conditions that have positive or adverse impacts on workers' health.

This section provides unemployment rate data for Bloomington, Monroe County, and the United States. Also, although there is little in the way of data presented, Bloomington's local living wage and green jobs are discussed.

Indicator: *Unemployment Rate*

The data below, from the United States Bureau of Labor Statistics, describe *monthly* unemployment rates. Both Bloomington and Monroe County rates were *lower* than the national average unemployment rate for all months in 2008 and City unemployment rates were *higher* than County rates over the same period.

Unemployment: United States/Monroe County/Bloomington

Month '08	Nat'l Avg.	Monroe County	Bloomington	Rate –Difference Between Monroe County & Bloomington
January	4.90%	3.80%	4.40%	15.79%
February	4.80%	4.50%	5.20%	13.46%
March	5.10%	4.20%	4.80%	12.50%
April	5.00%	3.40%	3.90%	12.82%
May	5.50%	4.30%	4.60%	6.52%
June	5.60%	5.00%	5.40%	7.41%
July	5.80%	4.80%	5.20%	7.69%
August	6.20%	4.70%	5.10%	7.84%
September	6.20%	4.20%	4.50%	6.67%
October	6.60%	4.60%	5.00%	8.00%
November	6.80%	5.20%	5.60%	7.14%
December	7.20%	5.80%	6.60%	12.12%
Yearly Avg.	5.81%	4.54%	5.03%	9.62%

Indicator: *Percentage of Jobs Paying at least Local Living Wage*

Data were not available on this important indicator for 2008. BCOS will attempt to gather data for the 2009 report.

In January 2006, Bloomington passed a *Living Wage Ordinance (LWO)*, which requires "covered" employers to pay "covered" employees a "living wage"; i.e. a wage the City of Bloomington believes is sufficient to meet basic needs for housing, child care, food, clothing, household items, transportation, health care and taxes. The LWO applies in the following specific employment situations:

1. The employer has a contract, or sub-contract, to provide services, or receive subsidy/grant from the City of Bloomington.
2. For-profit company with 10, or more employees; or, non-profit organization with 15, or more employees.
3. Service contract, or sub-contract aggregate of at least $10,000; or, value of grant or subsidy totals at least $25,000.
4. For-profit covered services include: food service; janitorial/custodial; security; parking lot maintenance and/or attendance; waste management; automobile maintenance/repair; landscaping; utility/building maintenance; carpentry; clerical/office services; street maintenance/repairs; sidewalk maintenance/repair/construction; laundry services; pest control; resident and day shelter services.
5. Non-profit subsidies must be tax abatements, or CRED payments; grants must be from BIILF, CDBG and/or Jack Hopkins Fund.

The 2009 living wage equals $11.25. However, the Living Wage amount varies by type of employment and the availability of a health insurance benefit. Employees receiving tips (such as restaurant workers) may earn the current living wage minus 10% of the annual sales of the employer prorated on an hourly basis per employee. Also, up to 15% of the living wage can be applied (by the employer) to help cover the cost of providing health benefits to the employee. The living wage will adjust along with inflation rates, increasing each calendar year by the same percentage as the Consumer Price Index for all Urban Consumers, as assessed the previous June 30th.

Indicator: *Number of Green Jobs*

Although BCOS was unable to obtain data for this indicator, it is included here because it has particular relevance to community sustainability. BCOS will attempt to gather data for the 2009 report. However, before BCOS can collect data, the term "green job" will have to be defined. Green jobs may provide products and/or services specifically designed to be earth-friendly. A green industry might:

- Generate and use clean, renewable energy
- Lower greenhouse gas emissions and pollution
- Conserve energy, water, and natural resources
- Minimize and reuse waste
- Decrease the use of hazardous materials as inputs and outputs
- Promote biodiversity and restore ecosystems
- Remediate/reverse/minimize human impact on the planet

We also might define as *green* those jobs that are carried out in workplaces specifically designed and managed in ways that are consistent with the three Es of sustainability. A sustainable industry or business might be characterized by the actions listed above and might also pay a living wage and provide benefits to employees. A sustainable industry might make use of only locally produced products to reduce negative transportation effects and reliance on exploited labor. We also might define as *green* those jobs that are carried out in workplaces specifically designed and managed in ways that are consistent with the three Es of sustainability, which would include consideration of their financial viability and their capacity to maintain operations, to weather economic downturns, and to enable appropriate growth and innovation.

Employment Discussion

The category of Employment links the environment, social equity and the economy. In general, sustainable employment exists when a community produces a great deal of what it needs locally, including jobs; when jobs are not contingent on far away laborers creating cheap products to be sold locally; when wages and profits remain within the community; when a dynamic range of jobs exists, thereby guaranteeing employment opportunities for people with varying levels of education and experience; when income is sufficient to provide a decent life; and when environmental factors, including source of materials, natural resource extraction techniques, and pollution concerns, are adequately considered.

For the time period under analysis, Bloomington's unemployment rate is consistently lower than the national average (with the exception of February '08). This fact often precludes Bloomington from receiving federal dollars aimed at unemployment reduction, although local authorities are confident that lack of employment is a significant problem in our community, where people are often underemployed (having, often multiple, part-time jobs) and a considerable number of the people receiving government benefits and emergency shelter are working. Conversely, Bloomington's unemployment rate for the period is higher than that of Monroe County. This is not surprising as larger communities tend to have higher rates of unemployment due to larger overall populations, more perceived job opportunities, and increased levels of support/resources for the unemployed (job services, career training, etc.).

Future reports would benefit from increased data concerning the number of local jobs paying (at least) the local living wage, as well as the number of green jobs in the local community. Additionally, a more in depth analysis of local employment practices - particularly those that aim to enhance employee satisfaction and improve employee health indicators while maintaining or increasing productivity and controlling costs would be very useful.

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CATEGORY: ENERGY

Indicators: **Annual Kilowatt Hours & Cost of City Electricity**
Annual Therms & Cost of City Natural Gas
Number of On-Line Renewable Energy Projects
Number of Solar Electricity Interconnection Agreements

Energy Conversion Factors:

- 1 therm = 100,000 Btu = 29.3 kWh
- 1 kWh = 3413 Btu = 0.0341 therms
- 1 million Btu = 293 kWh = 10 therms

Energy and Sustainability are very closely linked - as the sources of power we use have implications for the environment, the viability and vitality of the local economy, and the ability of citizens to purchase heating and cooling. At present, we rely heavily on fossil fuels to provide energy to our citizenry. Damage to the environment from extraction and transportation of that fuel is not included in cost calculations, so fuel may appear relatively inexpensive (although the average citizen contemplating a monthly heating bill might not describe it that way). While the availability of inexpensive and ample energy does not promote conservation in this sector, which is generally understood to be necessary for long-term sustainability, recent studies that predict rising costs and decreasing supplies may also, in the absence of alternatives, threaten sustainability.

The City of Bloomington has begun to address its own energy use with an eye toward reducing consumption. "Team Green" is a cross-department effort to identify ways City employees can reduce consumption. The effort includes tracking mechanisms for measuring change. The work of Team Green is not included in this report, but it is very relevant and could serve as a model for other institutions.

This section addresses our local community's relationship with energy. Indicators include those focused on fossil fuel generated power (electricity from the burning of coal and natural gas) and renewable-energy generated power (photovoltaic, wind, etc.).

Indicator: *Annual Kilowatt Hours & Cost of City Electricity*

2008 data from Duke Energy, shown below, demonstrate a noticeable difference in the cost per kilowatt-hour (KWh) across the different user types. Government pays the lowest price at $0.06 per kilowatt-hour, while Residential customers pay the highest price at $0.10 per KWh. This cost discrepancy is again noted in the percentage of total cost across the different user-types. Although Residential Users consumed slightly more than 33.5% of the total KWhs in 2008, they paid slightly more than 41.5% of the total cost while Government, which used slightly less than 24.5% of the total KWhs in 2008, paid just slightly more than 19% of the total cost. Also, the Residential sector, comprising nearly 85% of all users, consumed only 33.54% of the total energy supplied by Duke in 2008. The average yearly cost per Residential User is $563.04, which, based on Bloomington's median household income of $25,377, is 2.25% of residents' annual income. Not demonstrated in the table is a cost structure that decreases per-unit cost as use increases, a structure that does not promote energy conservation.

Electricity Data

User	# of Customers	Usage - KWh	% of Total Use	Total Cost ($)	% of Total Cost	Cost per KWh
Commercial	12,652	390,148,418	30.55%	$29,833,366.84	29.75%	$0.08
Government	661	311,949,336	24.43%	$19,177,824.21	19.12%	$0.06
Industrial	155	146,481,729	11.47%	$9,576,751.71	9.55%	$0.07
Residential	74,051	428,320,331	33.54%	$41,694,400.41	41.58%	$0.10
Totals	87,519	1,276,899,814	100.00%	100,282,343.17	100.00%	$0.08

Indicator: *Annual Therms & Cost of City Natural Gas*

BCOS was unable to obtain current natural gas data from Vectren Energy. However, using 2006 natural gas data gathered by the Bloomington Environmental Commission, BCOS has *projected* 2008 natural gas usage, with the additional help of Duke Energy data on electricity use patterns for the years 2006-07 and 2007-08. Duke Energy reports the C*ommercial* and G*overnment* sectors individually; Vectren Energy combines these two sectors into C*ommercial*. Furthermore, since there is no *Transportation* sector reported for Duke Energy, in order to ascertain the change in use pattern for this sector, we averaged the three use-pattern changes derived for C*ommercial, Industrial,* and *Residential* and applied that average use-pattern change to *Transportation*. Unfortunately, the 2006 Vectren data did not include number of customers, or associated cost figures. Therefore, it is not possible to report total cost, cost per therm, or cost per Residential User (as with electricity).

Natural Gas Data

User	Actual Usage '06 – therms**	% of Total Use	Projected Usage '08 - therms	% Change (from Duke data)	% of Total Use
*Commercial	7,723,703.54	20.84%	7,625,452.48	-1.27%	19.68%
Industrial	115,113.66	0.31%	119,824.15	4.09%	0.31%
Residential	14,793,949.37	39.92%	16,039,260.53	8.42%	41.39%
Transportation	14,428,752.11	38.93%	14,969,237.11	3.75%	38.63%
Totals	37,061,518.68	100.00%	38,753,774.27	4.37%	100.00%

*Commercial includes Government
**1 therm of nat. gas = 29.3 kWh; &
1 kWh = 0.0341 therm

These numbers are only projections, so further analysis would likely be unreliable. The information, such as it is, is included here as a space holder for future reports, when we hope to receive more useful data from Vectren Energy.

Indicator: *Number of On-Line Renewable Energy Projects*

BCOS obtained early 2009 data on on-line *solar* renewable projects from the Southern Indiana Renewable Energy Network (SIREN) in three categories: Solar Electricity (photovoltaic panels); Solar Hot Water Heating; and Solar Air Heating (general space heating). The total number of projects for each source is shown in parentheses next to that type.

Renewable Energy Data

Source Type	Capacity*	KWh/Day
Solar Electric (13)	31.54 KW (peak)	141.93
Solar Hot Water (6)	1,139,000 BTU/day	352.18
Solar Air Heating (4)	97,000 BTU/day	28.42
Total (23)		522.53

*1 therm = 100,000 Btu = 29.3 kWh

Only 23 projects were identified, and the total capacity and kilowatt hours generated per day is very low when compared to Duke Energy's electricity demand data (about .00004% of the total daily electricity demand of about 1.276 billion KWh). The actual amount of solar energy generated compared to Duke Energy's demand is probably even lower, considering that solar hot water and solar air heating usually augment natural gas demand more than electricity demand.

BCOS could not locate data for local wind, biomass, hydroelectric or geothermal energy production, though it is likely that some very slight capacity exists.

Indicator: *Number of Solar Electricity Interconnection Agreements*

An interconnection agreement allows a utility's electricity customer to sell to the utility any "excess" solar electricity generated by the customer. For example, if customers create electricity by installing solar panels on their roofs, but do not utilize all the power generated, they can sell the excess energy back to the utility. This relationship also is known as "net metering".

Duke Energy reported 17 Interconnection Agreements in Bloomington - 13 for residential users, including 12 at the City of Bloomington's Housing and Neighborhood Development (HAND) Department's "Evergreen Village" (9.2 KW capacity), and the remainder at private and non-governmental organizations.

In 2009, the Monroe County Landfill initiated development of a process to capture methane gas produced when organic compounds deposited at the landfill break down. The gases will be utilized to create on-site electricity for lighting, heating/cooling, or other needs. Development is still in the early stages, and there is no current data available on what the likely methane production rates, or corresponding electricity-generated capacities, will be. Nonetheless, it is an important potential alternative energy source that will be tracked in upcoming years.

Energy Discussion

For our community to build a sustainable future with regard to energy use, we must first understand our current relationship with energy (costs and availability), as well as what other options we have (alternative energy) to meet our energy needs. Lack of data (for example, information on natural gas use) presents a significant problem with respect to reaching that goal. The availability and inclusion of more comprehensive data for both sectors will make future reports far more useful.

Some findings are notable, however. Electricity data demonstrate an unequal cost delivery approach: although the Residential sector comprises 33.54% of the overall usage (in kWh), it is responsible for 41.58% of the total revenue for the utility. This is the result of a higher cost per kWh for the Residential sector ($0.10 compared to $0.08 [Commercial], $0.07 [Industrial], and $0.06 [Government]). Long-term sustainability in this sector might be enhanced if all sectors paid the higher rate (and subsidies and other

supports remained in place, guaranteeing winter heating and summer cooling for lower-income residents). Cost delivery structures aimed at reducing consumption of fossil fuels and promoting alternatives would, at the very least, improve air quality in our community.

Available data reveal that Bloomington relies almost exclusively on energy generated from coal and natural gas, though community interest in alternative energy is apparent for powering our homes and businesses. If citizens and government officials want to rely less on coal and natural gas, the challenge for the community will be balancing the cost of re-tooling to business, industry, renters and homeowners with anticipated benefits. Any consideration of costs will have to take into account those not usually included in calculations: for example, in-direct expenses related to damage to the environment from extraction and transportation. The conclusions of the Peak Oil Task Force also must enter into calculations: it is most likely that the fuels we commonly rely on will be less available and more expensive in the future.

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CATEGORY: FOOD

Indicators: **Amount of City Acreage Devoted to Food Production**
Number of Food Outlets Selling Locally Produced Food
Number of Community Sponsored Agriculture (CSAs) Businesses Serving Bloomington Customers
Number of Vendors at Local Farmers Markets
Number of Customers at Local Farmers Markets
Food Costs as Percentage of Median Household Income
Number of Free and/or Affordable Food Sources for the Needy

This section documents the amount of local acreage available for city-sponsored agriculture, as well as some private gardens. It also looks at participation in Community Sponsored Agriculture (CSA). The section contains vendor and customer participation data for the Bloomington Farmers' Market, lists local establishments that serve and/or sell locally produced food, and identifies local groups that work to provide affordable or free food for low-income individuals.

Indicator: *Amount of City Acreage Devoted to Food Production*

Total acreage within Bloomington city limits dedicated to crop production is not available at present. With the exception of a few large residential projects the BCOS was able to identify, private plots attached to residences are not included in this summary.

Local Agricultural Acreage

Site	Number of Plots	Square Footage	Acres
Willie Streeter Community Garden	180	60,000	1.377
Crestmont Community Garden	50	1,900	0.044
Banneker Green Thumbs Garden	/	1,800	0.041
Harmony School Garden	/	800	0.018
Hilltop Garden and Nature Center	/	217,795	5.000
Permaculture Growers Co-Op	3	196,016	4.500
Private Gardens (reported)	2	23,580	0.541
Totals	235	501,890	11.522

Future reports would benefit from development of a registry to capture more accurately the number and size of residential/private (possibly cooperative) plots being used for food production, including land devoted to the raising of chickens (for family consumption, sale, and contributions to local providers of food for the hungry).

Indicator: *Number of Food Outlets Selling Locally Produced Food*

There are numerous local establishments, including restaurants, bars and groceries, which buy and sell locally grown food. Those listed below are members of the Local Growers Guild. There are likely more establishments that have made similar choices, and the challenge for BCOS is to identify them.

Local Food Outlets Selling Local Food Products

Establishment		# of Locations	Type
Bloomingfood's Market & Deli		3	Grocery
Sahara Mart		2	Grocery
Bloomington Bagel Deli		2	Deli
FARM Bloomington		1	Restaurant
Food Works for Middle Way House		1	Caterer
Laughing Planet Café		1	Restaurant
Lennie's Brew Pub		1	Restaurant/Bar
Pizza Express		4	Pizza
The Limestone Grill		1	Restaurant
Nick's English Hut		1	Restaurant/Bar
Restaurant Tallent		1	Restaurant
Roots on the Square		1	Restaurant
Trulli Flatbread (now Finches)		1	Restaurant
Upland Brewery		1	Restaurant/Bar
Oliver Winery		1	Winery

Indicator: *Membership of Local Community Supported Agriculture(CSA) Businesses*

Although none are within the Bloomington city-limits, CSAs provide another source of locally produced food for Bloomington residents. The Local Growers Guild defines "local" as within a 100-mile radius. For a flat fee paid annually, a CSA offers whole shares or half shares of regularly delivered fresh vegetables and herbs. Some CSAs offer fruit and nuts as well, and a few provide processed foods. CSAs often have food available for much of the year.

CSA Data

CSA (Location)		# of Members
Core Farms (Bloomington)		164
Hazelbrake Farm (Nashville)		23
Lost Pond Farm (Hardinsburg)		19
Martin Hollow Farm (Brown Cty.)		12
TOTAL:		218

Indicator: *Number of Vendors & Customers at Local Farmers Markets*

Local farmers markets offer yet another access point for Bloomington residents to obtain locally produced food. Currently, five markets operate in the Bloomington area. The City manages a Saturday Market, held in the City Hall parking lot from April through November, and a Tuesday Market, held on Madison Street adjacent to the Bloomingfood's Near Westside location. A Wednesday Market, managed by the Monroe County Growers Association, is located at Bloomingfood's Eastside location. On Saturday, Bloomingfood's Eastside location hosts an additional market. Finally, a Winter Market, managed by the Local Grower's Guild, is hosted by Harmony School.

Market Data ~ 2005-2008

Year	# Vendors	in-City Vendors	in-County Vendors	# Counties Represented	# Customers
2008	135	5	37	22	172,204.00
2007	127	5	30	24	134,926.00
2006	141	11	27	25	113,490.00
2005	141	10	22	24	105,378.00

Indicator: *Food Costs as Percentage of Median Household Income*

The United States Department of Agriculture estimates that the average American spends approximately 13% of disposable income on food, including meals eaten outside the home. At this rate, Bloomington households earning 80% of area median income are left with $17,663 after covering the cost of food. Given the poverty rate in our community, it is fair to conclude that the cost of food is too high for many Bloomington individuals and families – although it was beyond the scope of this study to determine local food costs as a percent of income.

Indicator: *Number of Free/Affordable Food Sources for the Needy*

To provide for the food needs of lower income individuals and families, numerous local organizations offer groceries and prepared meals. Some of the providers are listed below with data indicating the volume of food they deliver in Bloomington (unless otherwise noted).

Hoosier Hills Food Bank - collects, stores and distributes food (1,299, 307 pounds in 2008) at a minimal charge to non-profit organizations, which provide free food to needy families and individuals

Mother Hubbard's Cupboard – Once a week, people who self-identify as low-income can select food from the shelves grocery-style. The organization focuses on fresh and organic foods. MHC distributed 750,000 pounds of food in 2008.

Backstreet Missions – provides prepared lunches Monday-Saturday, dinner Monday-Friday, and breakfast Saturday; operates an on-site, walk-in food pantry.

Monroe County United Ministries – provides "emergency" food once each month to qualifying families.

Community Kitchen – offers free meals on-site (also available for carry-out) to individuals and families, Monday through Saturday, and several food programs for at-risk and/or underserved children, including weekend "backpack" and summer breakfast packages. Across all feeding programs, CK provided 151,460 meals in 2008.

Center for Sustainable Living – operates the "Food Project", providing vegan and vegetarian food from the Hoosier Hills Food Bank to local low-income people.

Shalom Center – operates the "Feeding Program", providing breakfast and lunch Monday through Friday, and a weekly food pantry every Wednesday afternoon. Shalom served 68,521 meals in 2008.

Area 10 – provides food to people age 55 and older at three senior nutrition sites in Bloomington. The agency also delivers meals to the homebound elderly. In 2008, Area 10 provided 164,815 meals in Owen and Monroe counties.

Food Discussion

Food has been included among the categories for assessment because it is a basic need. Sustainability concerns include such issues as the affordability of high-quality, healthful food so that all community residents have access to sound nutrition; the conditions under which the food was grown and processed and how it arrived at local grocers/restaurants/distributors. Hunger and poor quality food rich in artificial additives have been associated with health problems and poor school performance, among other ills. Unsustainable agricultural methods can deplete the soil, create run-off dangerous to the water supply and harmful to end-users, and contribute to forest destruction. When food and food products are transported, the use of nonrenewable transportation fuel and the exhaust caused by trucking raises environmental issues, as does the proliferation of highways, with their impermeable surfaces, to facilitate that transport. These sustainability-related issues are at the center of considerable activity locally.

The availability of locally produced food has grown enormously over the past two years: CSAs have proliferated; the Parks Department and local nonprofits have sponsored a growing number of garden plots; and places where locally produced food can be purchased or eaten have increased significantly. At the very least, nearly 12-acres of land within city-limits are devoted to food production. It is likely that recent city ordinance changes regarding private crop production and livestock management will lead residents to devote even more space to meeting food needs. A three-year old local food project, *Building a Healthy Community*, is a nine-organization, cross-sector collaboration aimed at supporting such increases and creating the context for local food processing and developing products and small businesses through a "Kitchen Incubator" incorporated in September of 2009.

This report has not sought to compare the cost of food in Bloomington with the cost in other cities. Rather, it has provided a framework for understanding how the estimated local cost might, or might not, be affordable for lower-income residents. The number of local organizations providing free and/or affordable food and the number of patrons they serve suggest that a significant number of people in the community find food costs beyond their means.

Working on the assumption that producing more of our food locally will alleviate some of the environmental concerns while potentially adding income sources to the local economy, challenges for the community will be to develop mechanisms for promoting local agriculture and food processing while keeping food affordable for lower-income residents.

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CATEGORY: HEALTH CARE

Indicators: **Number of Annual Patient Visits to Affordable/Free Health Care Clinics**
Annual Value of Service at Affordable/Free Health Care Clinics
Annual Prescriptions Filled at Affordable/Free Health Care Clinics
Number of Primary Care Providers Per Capita
Annual Fatality Rates from Disease and Other Causes
Number of Affordable Mental Health Care Facilities
Number of People Served for Mental Health Issues in Affordable Health Care Venues

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The availability of affordable, reliable and effective health care can play a vital role in promoting long-term sustainability. The high cost of healthcare and health insurance is compromising the capacity of business and industry to be profitable and competitive in the global marketplace. Workers without access to healthcare are likely to be less productive, while unhealthy, anxious citizens are less able to participate in and contribute to civic projects. Individuals and families without healthcare suffer more insecurity and, sometimes, tragedy, which contribute to eroding the bonds of community. A sustainable health care system that contributes to economic vitality and community stability will exhibit easy access, affordability and quality care.

This section looks at various aspects of our existing local health care system. It reports patient usage data from one source of services for those not able to afford health insurance, as well as the value of service received and access to prescription medications. It contains data on the number of primary care physicians, total and per capita. Annual fatality data are included for various death causes. Also there is information on existing affordable options for mental health needs.

Indicator: *Number of Annual Patient Visits to Affordable/Free Health Care Clinics*

Please see chart top next page.

Indicator: *Annual Value of Service at Affordable/Free Health Care Clinics*

Please see chart top next page.

Indicator: *Annual Prescriptions Filled at Affordable/Free Health Care Clinics*

Please see chart top next page.

According to the US Census Bureau, about 15% of Americans have no health insurance; according to the Commonwealth Fund, another 8% are underinsured. As data specific to Bloomington were not available for 2008, BCOS decided the best approximation of those without insurance, and in need of care, would come from VIM's (Volunteers in Medicine) service statistics. The approximation is far from exact as the VIM Clinic offers health services only to those uninsured adults who meet eligibility guidelines. The clinic opened in April 2007.

The clinic focuses on providing primary care for acute and chronic conditions. Some common examples of chronic conditions treated at the clinic include diabetes, heart disease and depression. Nearly 90 providers volunteer on site at the clinic. Patients with illnesses or conditions the clinic is not equipped to handle are referred to local specialists. In 2008, participating specialists provided nearly $1,000,000 in care. Prescriptions are available at the clinic for a small handling fee ranging from $3 to $9 per prescription; the average cost per prescription filled at VIM in 2008 was $91.

VIM Patient/Visit Data

Year	Patients	Visits/Day	Walk-in Rates	Value of Service	Prescriptions Filled	Prescription Value
2007 (8 mos.)	781	75	13.05%	$412,540	23,792	$2,165,000
2008	2,352	83	27.00%	$538,709	27,187	$2,474,017

It is also worth noting the number and nature of visits of each type, as the next chart will reflect.

Number/Nature of Visit(s) to VIM

Year	Medical	Dental	Behavioral/Mental	Eligibility Appts.	Total
2007 (8 mos.)	5,163	310	376	3,525	9,374
2008	9,349	482	361	11,550	21,742

Indicator: *Number of Primary Care Providers Per Capita*

For this report, the number of *primary care* physicians was calculated as the sum of "Family Practice" physicians and pediatricians. Two sources were used to compile the data: Bloomington Hospital (to see how many primary care physicians were available at that location) and the Monroe-Owen County Medical Society (to see how many primary care physicians were available throughout the general area, since providers outside city limits are available to our residents). The county data show the number of physicians and the number of facilities in the service area (Locations). Dividing the total population by the number of primary care physicians available at Bloomington Hospital provides a rough estimate of *per capita* availability. The *per capita* rate below combines the Bloomington Hospital and the county, since many of the locations reported by the Monroe-Owen County Medical Society are likely contained within the Bloomington city limits. Future reports will further differentiate between physicians located specifically within Bloomington city limits and those located in the surrounding county. Using the current Bloomington city population, there is approximately one primary care physician for every 1,019 Bloomington residents.

Primary Care Data

Year	# of PC Physicians at Bloomington Hospital	# of PC Physicians in County (# of Locations)	Total PC Physicians	Per Capita Availability
2008	26	42 (20)	68	1 for every 1,019 citizens

Indicator: *Annual Fatality Rates for Diseases and Other Causes*

Data for this indicator were only available for Monroe County as a whole (obtained from the Monroe County Health Department's 2008 Report).

2008 Fatality Rates

Cause of Death	# Females	# Males	Total
Heart Disease	147	166	313
Cancer/Malignancy	111	145	256
Lung Disease	73	88	161
Neonatal	18	19	37
Infection	16	13	29
Drug Overdose	9	11	20
Suicide	6	5	11
Homicide	0	6	6
Alcoholism	0	4	4
Diabetes	1	0	1
Totals	381	457	838

Indicator: *Number of Affordable Mental Health Care Facilities*

In addition to affordable options for health service, a sustainable community also will have affordable options for mental health service. We already have documented the number of mental health consultations performed at the VIM Clinic, representing free service (361 appointments in 2008). There are several other facilities/organizations offering free and/or affordable mental health service options for Bloomington residents. It also is important to note that many private mental health care professionals offer sliding-scale rates for potential clients, meaning that they will negotiate rates based on the financial circumstances of clients. The following list should not be viewed as exhaustive, but as a starting point of options available for affordable mental health care.

Centerstone (Center for Behavioral Health) – offers reduced client co-pays with funding received through the State Department of Mental Health; full range of mental health options available, including office-based, community-based, and home-based; includes treatment options for substance abuse. Crisis intervention is available 24/7.

Catholic Charities – provides one-on-one and group counseling.

Meadows Behavioral Care System – provides full range of behavioral health services for children, adolescents and adults; accepts Medicaid and Medicare; long-term (on-site) and short-term options; open 24/7.

Bloomington Hospital Counseling Services – offers in-patient and out-patient services; accepts Medicare and most insurance plans.

Milestone Clinical & Health Resources – certified, out-patient mental health facility offering wide range of support, including behavioral and therapeutic approaches; accepts Medicare and Medicaid, as well as major insurance providers.

Center for Human Growth (Indiana University) – graduate students provide counseling for individuals, couples, families and groups; committed to offering services at lowest possible cost to clients, including free psycho-educational programs; individual counseling sessions at $15/session and family/group sessions at $20/session.

Indicator: *Number of People Served for Mental Health Issues in Affordable Health Care Venues*

Data were not available on this important indicator for 2008; BCOS will attempt to gather data for the 2009 report.

Health Care Discussion

The availability of affordable health care/insurance and prescription medications is currently a topic of national discussion and concern. In answer to the need for such care in Bloomington, the VIM Clinic was established. VIM provides basic care, referrals for specialized care, and affordable prescription drugs to adults who do not have health insurance. From its first to second year of operation, VIM experienced significant growth in patients seen (more than twice as many in year two than in year one). The yearly *value of service* and *walk-in rates* for 2007 and 2008 also reflect this growth. Additional data, such as *number of citizens per primary care physician* (1,019) and *fatality rates,* might be more useful if we had comparable data from other communities. However, the length of time it takes to get an appointment with a physician might provide more meaningful data for determining if the number of physicians is sufficient to meet the needs of the population – it is possible that the supply is inadequate compared to other locations.

While Bloomington has the VIM clinic to help uninsured individuals, its capacity to address the need (as indicated by the dramatic rise in visits in 2008) will have to be tracked. At present, BCOS has no way of knowing how many uninsured adults reside in Bloomington, and it can rely only on the numbers served by VIM to estimate the size of that population. As VIM does not serve the *under*-insured, the number of individuals in this category is currently outside the Commission's capacity to estimate.

As the Commission continues to collect annual fatally rates, trends in particular diseases and other causes of death may be discernible. Bloomington could develop responses designed to reduce disease (and accidents or intentional injury, if they prove relevant).

Finally, future reports will try to determine if the Bloomington organizations providing affordable mental health care are at capacity, and whether Bloomington has sufficient and affordable dental and eye care services.

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CATEGORY: HOUSING

Indicators: **Percentage of Rental Housing that is Substandard**

Number of Units/Homeowners Receiving HAND Financing

Number of Affordable Housing Units

Number of Green Development Units

Housing is a basic need. Its lack – or insufficiency – has been tied to a number of social ills. It is relevant to a study of sustainability for a number of reasons, including the role it plays in the local economy, how housing development affects the natural environment, and whether or not it is available to all community residents.

This section focuses on annual rental property evaluations performed by Bloomington's Housing and Neighborhood Development Department (HAND), programs to assist low-income homeowners in making necessary repairs and improvements to their homes, the availability of affordable rental units, and green building development in Bloomington.

Indicator: *Percentage of Rental Housing that is Substandard*

In 2008, there were approximately 22,000 rental units in Bloomington, of which approximately 6,500 were inspected as part of HAND's Rental Inspection Program. Five percent (5%) were found to be substandard.

Year	Total Units	# Inspected	% Substandard
2008	22,000	6,500	5.00%

Indicator: Number of Units/Homeowners Receiving HAND Financing

HAND administered three programs in 2008 with the goal of rehabilitating and/or repairing owner-occupied homes for low-income homeowners in the Bloomington area.

Low-Income Housing Programs

Program (Type)	# Units Assisted	HAND Investment
Emergency Home Repair (Grant)	11	$44,450.00
Owner-occupied Home Rehabilitation (Loan)	1	$23,918.00
Home Modifications - Handicap Accessible (No-Cost)	16	$127,025.00
Totals	28	$195,393.00

Indicator: *Number of Affordable Housing Units*

According to the U.S. Department of Housing and Urban Development (HUD), a rental unit is considered *affordable* if the monthly rental amount is 30% or less of the tenant's gross monthly income. In Monroe County, 46% of housing is renter-occupied, and more than 45% of rentals exceed 35% of household

income. Bloomington has a number of affordable rental housing options. Several not-for-profit agencies provide transitional and permanent, supportive housing. Often, such housing is financed with low-income housing tax credits and aided by the City's Housing and Neighborhood Development (HAND) Department, which awards CDBG and *HOME* funds. Section 8 (HUD) and Public Housing are available through the Bloomington Housing Authority and Section 8 vouchers also are distributed through SSCAP.

Affordable Rental Programs

Program	Number of Units
Low-income Tax Credit	1,810
HAND "HOME"	121
Section 8 Housing	1,268
Public Housing	310

Indicator: *Number of Green Development Units*

For the purposes of this report, BCOS was unable to distinguish between typical development and green development in Bloomington. At present, there is no mechanism for collecting that information. However, the City has been active in this arena. In May 2009, Evergreen Village, developed through Bloomington's HAND Department, was completed. The Village is a subdivision consisting of 12 LEED-compliant, high-efficiency homes (featuring solar panels) that will be sold to qualifying low-income residents. Also, there are sections of Bloomington's Unified Development Ordinance (UDO) that encourage green building/development and, in 2009, the Bloomington Common Council passed a Green Building Ordinance to ensure that all new City buildings (and retrofits of existing buildings) are constructed to meet Leadership in Energy and Environmental Design (LEED) Silver standards.

Housing Discussion

Bloomington has long been identified as having the smallest stock of affordable housing in Indiana and the highest costs relative to income. Those conditions create considerable difficulty for lower-income residents and place a strain on private, not-for-profit organizations and City departments concerned with housing issues. Even middle-income individuals and families struggle to meet housing costs in Bloomington. Homeless and ill-housed citizens create significant costs for the community as a whole; housing availability and affordability are issues that also affect local business, schools and health providers, to name just a few. Bloomington has some admirable programs to address the problem, and the Mayor convened an Affordable Housing Task Force in October 2009 charged with recommending the terms of a new, inclusionary housing ordinance that would increase the stock of affordable housing by requiring it in all new developments. The challenge for the City will be to balance the need for affordable housing against developers' profit motivation and to create housing units sufficient to meet the need.

In addition to access to housing, related sustainability concerns include where in the community homes are constructed; the products used in construction and where they originated; and how homes are heated, cooled and lit. Where homes are located, how they are grouped, and density and use restrictions can affect green space and water sources, transportation choices, and the public cost of infrastructure installation. There may be tension between up-front costs and long-term expenses, between the desires of the individual homeowner and the good of the larger community, between the need for housing for lower-income individuals and neighborhood character. Housing is an area fraught with difficulties for sustainable development.

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CATEGORY: TRANSPORTATION

Indicators: **Annual Rate of Bus Ridership**
Bus Ticket Cost as Percentage of Median Household Income
Number of Businesses Offering Biking/Walking/Carpooling Incentives
Percentage of Public Transportation Fueled by Alternative Energy Sources

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The effects of transportation on environmental costs and household costs and on access to amenities such as shopping and entertainment are directly linked to a community's overall sustainability. To understand our existing transportation system, as well as develop a more sustainable system in the future, such things as public transportation, walking, biking, carpooling, safety, cost and needs will have to be analyzed. Our existing relationship with and preference for personal vehicles may conflict with creating a more sustainable transportation system for our community.

This section looks at annual bus ridership; ticket cost in relation to median incomes; the number of vehicles in the Bloomington Transit fleet that make use of alternative energy; and biking/walking/carpooling incentives. The report does not include any data or discussion on current trends in personal vehicle use, but future reports will try to add this important aspect of transportation.

Indicator: *Annual Rate of Bus Ridership*

Bloomington Transit Ridership Data

Year	Non-IU Riders	IU Students	Total Ridership
2006	775,014	1,588,512	2,363,526
2007	807,321	1,762,796	2,570,117
2008	877,790	1,952,160	2,829,950

In 2001, the City of Bloomington Transit System accepted university-issued bus passes in lieu of direct rider payments for bus service. The agreement has led to large increases in annual ridership, as demonstrated in the table above.

Indicator: *Number of Businesses Offering Biking/Walking/ Carpooling Incentives*

In 2008, the City of Bloomington did not have in place any specific incentives to promote biking and/or walking. However, work began in 2008 and was completed in 2009 on a new, downtown portion of the B-Line Trail. The trail is expected to increase biking and walking in the area. The City also has created bicycle-parking areas with safe, accessible storage around Bloomington to increase bicycle use. Also, the Planning Department offers low cost bicycle safety education to the public, as well as learn-to-ride classes for elementary students. To encourage the use of mass transit, the City provides BTA bus passes to its employees free of charge. The City also offers annual parking passes to full-time City employees for $2, a practice not likely to discourage driving to and from work.

One incentive the City might take advantage of to promote biking among City of Bloomington employees is the Bicycle Commuter Tax Provision. This incentive was added in January 2009 to the list of transportation fringe benefits as covered under the Internal Revenue Service code. Under this plan, employees who bike to work, on average at least three days a week, are eligible to receive a monthly stipend intended to defray some of the fixed costs associated with bicycle commuting.

Indicator: *Percentage of Public Transportation Vehicles Fueled by Alternative Energy Sources*

Currently, there are two hybrid-electric buses, purchased in 2006, out of the 48 buses in the Bloomington Transit fleet.

Indicator: *Bus Ticket Cost as Percentage of Median Income*

2008 Bus Pass Costs

Type	Cost - $
Each Way	$1.00
Monthly	$30.00
6-Months	$50.00
1-Year	$100.00
% of Median Income	0.39%

Transportation Discussion

The current US transportation system is unsustainable in several ways:

1) It depends on a finite resource: petroleum
2) Petroleum-based emissions impact local urban air quality
3) Petroleum-based emissions contribute to global warming
4) Motor vehicle coolants damage the planet's ozone layer
5) Motor vehicle accidents produce excessive injuries and fatalities
6) Many current transport facilities are congested

Relying on private automobiles, particularly those fueled by petroleum, is detrimental to the environment. Reducing the volume of transportation by private vehicle would make for a more sustainable community. Increasing mass transit ridership and improving conditions favorable to walking and bicycling can help. In recent years, Bloomington bus ridership has increased, and the introduction of hybrid vehicles has also helped. Bicycle lanes have been created and the B-line trail has been extended. The City has promoted bicycle use and safety. This report does not include the miles specifically available to walkers and cyclers. It is not clear if there are plans to extend the current network, but data are available and BCOS may include that information and track changes in future reports.

The City has plans to expand the transit system and to make the routes more efficient. It also plans to add more hybrid vehicles to the fleet.

Two areas not covered herein that may be included in future reports are safety and the amount of fossil fuel used for transportation.

A sustainable community will have in place a variety of transportation options aimed at reducing the intensity of fossil fuel usage while minimizing any negative impact on transportation availability for citizens, including prohibitive costs and over-long commutes between home and work. City officials are aware of the need for further improvements, and are making progress.

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CATEGORY: WASTE

Indicators: **Tons of Solid Waste to Landfill**
Tons of Recycled Material (Paper, Co-Mingled, and Yard Waste)

The human waste stream, what and how much is thrown away and how garbage is processed, is pertinent to any study of sustainability. Items sent to landfills are lost resources. If we find ways to reuse and/or recycle items, we would extend their useful lives and reduce the need to use more valuable natural resources. At present, Bloomington has incentives (curbside recycling is free for a large variety of items) and disincentives (there is a cost for every container of household garbage collected by City Sanitation). Whereas collection represents a cost, re-use may represent potential for economic vitality locally.

This section looks at local waste statistics that show how Bloomington is doing in reducing its *per capita* waste stream: annual rates (in tons) of solid waste distribution to local landfills; annual rates of recycling for paper and co-mingled products; and rates of disposal for yard waste.

Indicator: *Tons of Solid Waste to Landfill*

Please see chart below.

Indicator: *Tons of Recycled Material (Paper, Co-Mingled, Yard Waste)*

Please see chart below.

Waste Management Data: 2004-08

Year	Solid Waste Tons Total	Recycled Tons Total	Recycled Tons Paper	Recycled Tons Co-mingled	Loads of Yard Waste
2008	6,352.00	3,113.56	1,998.10	1,115.46	72.00
2007	6,538.66	2,869.51	1,905.75	953.76	42.00
2006	6,924.26	2,859.65	1,956.83	902.82	85.00
2005	6,665.73	2,810.96	1,973.10	897.86	76.00
2004	7,374.42	2,795.18	1,970.75	824.43	103.00

Waste Discussion

The available data do not include some waste streams that are important to consider for Bloomington; e.g., the solid waste that is extracted at the Sewage Treatment Plant and interred in the landfill facility. Also, recycling data for some areas give us little information outside of total tonnage.

Recycling programs are very limited for some Bloomington sectors (e.g., apartment dwellers and restaurants/bars). These groups likely represent a significant amount of potential recycling material. Further inquiry into recycling options and data gathering methods would help to achieve a more complete picture of Bloomington's waste stream.

Waste is a specific subset of resource use and management. Our local economy uses renewable and non-renewable resources in many sectors, and waste from consumer goods and industry represents the end stage of many of these resources as they leave the economic cycle. For any local economy to be

sustainable and to avoid eventual natural resource depletion, it must rely on resources that are renewed naturally at the same or slower rate than those resources are joining the waste stream.

The use of non-renewable resources is unsustainable and should be minimized where possible. To stay within the "carrying capacity" of an ecosystem, even the use of renewable resources should be closely tuned to the natural cycles that rejuvenate them. Looking at data from our waste stream gives us some idea of what and how much is being discarded. Studying our efforts at recycling allows us to see how many of those resources we are redirecting after use and reusing before taking them out of the system. Both are important pieces of data, but we are also missing crucial information about what the carrying capacity of our local ecosystem is, as well as data about the types of waste we are interring in our landfills. For example, interring wood waste at a sustainable rate so that timber can be grown to replace that which we have used is a more sustainable practice than interring rare elements like zinc that are non-renewable and in dwindling supply. Also, for this report, no effort was made to identify local recycling/re-use efforts in the private sector. The details of our data do not permit analysis of these dimensions of our local economy.

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CATEGORY: WATER

Indicators: **Water Usage as a Percentage of Average Available Supply**
Water Contaminant Levels
Number of Local Water Bodies with Fish Advisory Warnings
Water Cost as Percentage of Median Household Income

How we use water, how much we use, the quality of our water, where it comes from, and its cost for consumers, are all important elements in determining our community's progress in developing, or nurturing, a sustainable relationship with water. Determining existing and/or future threats to our water supply, and any risks to our delivery system that might cause either short or long-term interruptions in service will help ensure a community's sustainability.

This section looks at local water usage for residents and commercial and municipal entities, water costs relative to household income, contaminant levels of the local water supply, and fish advisories for local waterways in 2008.

Indicator: *Water Usage as Percentage of Average Available Supply*

City of Bloomington Water Distribution

User	Commercial	Industrial	IU Master	Multi-Family	Single-Family	Wholesale	**Total**
# Custmrs	/	/	/	/	/	/	/
1000 gal. rate	$1.81	$1.67	$1.35	$2.14	$2.14	$1.37	/
1000 gal Units Sold	1,002,716	27,050	310,134	848,027	932,091	1,074,345	4,194,363
Cost	$1,814,915.96	$45,173.50	$418,680.90	$1,814,777.78	$1,994,674.74	$1,471,852.65	$7,560,075.53
With 7% tax	$1,941,960.08	$48,335.65	$447,988.56	$1,941,812.22	$2,134,301.97	$1,574,882.34	$8,089,280.82

Average available supply data, as well as the number of customers within each sector, were not available for this report. It was not possible to determine average costs per customer; such a calculation would be particularly useful when analyzing the Residential sector, as well as in comparing average price per customer across sectors.

The data, similar to the electricity data, reflect a cost structure that is not equitable across all users – Residential Customers (multi-family and single family) used the most water (1,780,118 Units) and paid the highest rate ($2.14 per Unit) even though the structure rewards use by reducing the per unit cost as use volume rises. Future reports will aim to further analyze the cost structure and usage data across all sectors in order to more completely present our community's overall relationship with water.

Indicator: *Water Contaminant Levels*

According to the City of Bloomington Utilities' *2008 Water Quality Report*, Bloomington water meets or exceeds all legal standards with regard to water quality. The following contaminants were found in Bloomington's water within acceptable limits. Not listed are over 75 contaminants that were not detected.

Substance	Highest Level Allowed	Highest Level Detected	Sources
Total Coliform Bacteria	5%	1.20%	Natural
Heterotrophic Plate Count	500 CFU/ml	20 CFU/ml	Natural
Turbidity	/	.28 units	Soil Runoff
Barium	2 ppm	.017 ppm	Erosion of Natural Deposits
Copper	1.3 ppm	.012 ppm	Corrosion (household plumbing)
Chloramines	4.0 ppm	2.8 ppm	Water Additive
Fluoride	4 ppm	1.44 ppm	Water Additive
Nitrate	10 ppm	.11 ppm	Fertilizers, Septic Systems, Sewage, Erosion
Lead	15 ppb	308 ppb	Corrosion (household plumbing)
Total Trihalomethanes	80 ppb	40.8 ppb	Drinking Water Chlorination
Haloacetic Acids	60 ppb	35.0 ppb	Drinking Water Disinfection
Total Organic Carbon	min. 35% removal	38.3% removal	Natural
Di-phthalate	6 ppb	2.1 ppb	Rubber/Chemical Factory Discharge

* ppm=parts per million; ppb=parts per billion

Indicator: *Number of Local Water Bodies with Fish Advisory Warnings*

Data for 2008 were not obtainable. However, Indiana Fish Advisory data for 2009 show that all water bodies within the Bloomington city limits are under fish advisory warnings. It is likely that data for 2008 would show the same notable finding: all Bloomington waters contain fish that are in some way hazardous for humans to consume. Children, pregnant and/or nursing women, and the elderly are particularly affected by these warnings.

Indicator: *Water Cost as Percentage of Median Income*

Combining the cost plus tax for single-family and for multi-family users gives the total cost for all residents served by City of Bloomington Utilities ($4,076,113.56). Dividing this total by the number of Bloomington occupied housing units (26,468; U.S. Census data) gives the total cost per occupied housing unit - $154.00. This total represents less than 1% of the 2008 Bloomington median household income ($25,377).

Water Discussion

Sufficient potable water is vital to a community's long-term sustainability. Our citizens need reliable, affordable, safe, pollution-free water; so do our local fish and wildlife. While our treated drinking water

meets or exceeds all legal standards defined by regulatory agencies (such as the Environmental Protection Agency and the Indiana Department of Environmental Management), the supply may be threatened by overuse and demand from other communities. There have been past attempts to tap into Lake Monroe's fresh water supply as an additional source of drinking water for Indianapolis, and there are likely to be additional proposals in the future (from Indianapolis or elsewhere). Clearly, assuring an adequate water supply for our community will require conservation by residential, commercial and municipal users.

As availability also is determined by pumping and purification capacity, future reports will assess our ability to effectively and efficiently transmit water in times of emergencies.

We do not know how the cost of water in Bloomington affects lower-income residents who could be denied hook-up for failure to pay Utilities bills. While comparison with prices in other similarly-sized communities might be helpful in determining affordability, the high poverty rate in Bloomington might decrease the usefulness of such comparisons.

For all practical purposes, all water bodies in Bloomington have had fish advisories posted in 2008. This is not only a dismal environmental statistic, but also a health issue for those who fish for food. It is important for Bloomington to take steps on its own, as well as to coordinate with State government, to improve the water quality of our lakes and streams.

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FUTURE S.T.A.R. CONSIDERATIONS

There are several additional categories that could be included in future reports, especially if the relevant data can be obtained. Information on the following categories would contribute to a more robust analysis of our community's sustainability:

- Public Safety
- Education & Youth Development
- Air Quality
- Civic Participation/Leadership
- Recreation & Green Space

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CONCLUSIONS & RECOMMENDATIONS

The Data Before coming to conclusions about the information contained in this report, BCOS must acknowledge the information that is absent from the report. For several reasons, this report suffers from lack of data across the categories. As a consequence of the STAR Committee's decision to re-work most of the categories and indicators, there was not an abundance of data, or developed data sources, from past efforts that could be referenced and built upon for this report. Instead of the relative ease associated with re-visiting data (or its source), we were seeking new data and resources – and often coming up dry. Some of the data we sought was simply not available because it is not being collected by anyone; in some instances, data specific to Bloomington could not be teased out; finally, some of the entities from which we attempted to gather data were not helpful. These data shortcomings offer some direction for the future with respect to resource development needs. BCOS will begin work immediately to encourage data collection within the relevant City departments and other entities providing service to Bloomington residents. While resource development is likely to render future efforts at data collection more productive, BCOS itself will require additional resources to process and analyze that data.

As BCOS analyzed the data that was collected, there was some concern about contextualizing it, perhaps with comparisons to other, similar cities. Current data, for instance, reveals that there exists one *primary care physician* for every 1019 Bloomington citizens; however, there is no indication whether this is an average ratio, a below-average ratio, or an above-average ratio. Of course, the ratio could be average and still inadequate, and to establish the adequacy of the supply of physicians, BCOS would likely need some measure of the time that elapses between a person's request for an appointment and the date of actual service. There was no attempt to collect that information and it is unclear from whom the information might be garnered.

Finally, data is lacking for trend analysis. With the 2008 report as a baseline, BCOS will be in a better position to determine the City's direction (toward or away from a sustainable future) across more categories over time.

Defining Sustainability and Setting Goals The ordinance that created the City of Bloomington Commission on Sustainability set forth a general framework for understanding the term and developing goals. For Bloomington to be sustainable, it must have environmental integrity, economic vitality, and social equity. These concepts themselves require some definition; in particular, we need a way to determine if the community is moving closer to or further away from an ideal construction of each of the concepts. Setting some goals against which to measure progress would make the report more relevant. For example, to move in the direction of a more sustainable environment, what specifically would we have to do? And, how would we balance the tensions among the three Es to settle on those goals? Reducing emissions, for
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example, might be costly to local industry, compromising economic vitality – in the short term, at least. Likewise, there has been opposition to a *living wage* on the part of the local Chamber of Commerce – a living wage might be a cost that local business could not profitably carry. In other words, Bloomington needs to develop a vision to provide direction to this report and the specific recommendations that it spawns.

Recommendations As the task of simply reporting these findings will mean little if the findings are not somehow related, and applied, to a set of goals that the city sets, BCOS recommends that a process be developed for engaging City residents, City government, the business community, the social service sector, and other groups in an effort to create a vision and establish guidelines for balancing competing interests. BCOS also recommends that County and University representatives play a role in the process as both have significant influence over Bloomington's capacity to be more sustainable. Further, the Commission recommends that this process be a high priority for the City's soon-to-be-hired Sustainability Director.

While this process is unfolding, BCOS recommends that City departments develop mechanisms for collecting data relevant to sustainability, particularly where it will inform the indicators in this report. For example, HAND might develop a registry for residence or neighborhood-based agricultural endeavors, much like the Backyard Habitat registry and the Planning Department could include a checklist of "green" components in permit applications.

BCOS also has recommendations relevant to specific categories. There are a number of sustainability-related measures BCOS was unable to capture. In the area of Employment, we focused attention on *un*employment although it is well-known that the larger problem in Bloomington is underemployment. Wages are low and full-time jobs are scarce in an economy heavily reliant on fast food and retail. Further, information about the availability and nature of employment-related benefits is not readily obtainable; nor is there information that would enable the Commission to estimate the number of green jobs. To improve future reports, BCOS urges greater involvement of the business community through the Chamber of Commerce and SCIHRA (South Central Indiana Human Resources Association).

With respect to Energy, BCOS suggests that providers consider the consequences of pricing structures on consumption/conservation. BCOS applauds Team Green efforts at the City and urges regular review of those efforts with the aim of enhancing conservation and providing guidelines and encouragement for similar efforts in other sectors of the economy and local households.

Grassroots groups in Bloomington have made laudable strides in encouraging the production and consumption of locally grown food. The City also has played a significant role as the sponsor of the largest local Farmers' Market. Recent ordinances/ordinance changes also are designed to encourage local growing of food. BCOS recommends that the City consider the provenance of the food it purchases and serves at City-sponsored events with the aim of favoring food that is locally produced.

There may be little the City can do on its own to influence the delivery of healthcare and health insurance. However, the City can play a role in encouraging healthy lifestyles. Facilitating walking and biking are moves in the right direction. BCOS urges the City to consider other ways in which it might exert influence over citizens' choices.

In 2009, the Mayor convened a task force to look at the issue of affordable housing. The group's charge is to recommend content for an ordinance that will increase the stock of affordable housing without placing undue burden on developers. This is a long-overdue development and one BCOS supports. BCOS also would urge the Planning Department to review its policies with respect to mixed-use zoning (important to the Transportation and Energy areas, too), density and support for infrastructure costs, among others, to see how those policies affect the supply of housing for all Bloomington citizens. BCOS believes the City should find and offer incentives for green building practices and products.

There is considerable activism around Transportation in Bloomington. BCOS recommends a summit be called on the issue. BCOS also encourages the City to do even more to support walking and cycling and

suggests the City review the contradiction posed by the low cost of parking in the City Hall lot. Should the City decide against raising those fees, BCOS suggests the City consider further incentives for other modes of transportation among employees.

BCOS recommends that recycling be extended to rental units and businesses. The City might consider ways to promote private responses to these sectors if it determines the cost of collection by the City would be too high. Landfill options should be thoroughly reviewed for their potential to generate energy in the form of methane gas capture, and recycling centers deserve another look.

BCOS recommends that City Utilities manage water for conservation and security as well as for potability. A first step should be a review of pricing structures.

Finally, and perhaps most importantly, BCOS recommends that the City do everything in its power to encourage thinking about sustainability among its citizens. An engaged citizenry is absolutely necessary to the development of sustainability goals that will achievable.

BCOS encourages feedback with respect to the components of this report, the categories and indicators, the data collected, as well as the conclusions reached and the recommendations made. BCOS also welcomes ideas on how to promote the prospect of developing a citywide vision for sustainability in Bloomington.

BCOS thanks you for taking the time to read this report, and looks forward to entering into meaningful discussions with you as Bloomington develops its unique approach to becoming a more sustainable community.

#	Category	Objective	Indicator
1	**ENERGY**	Promote energy conservation	Annual natural gas usage for public users (therms)
1a			Annual natural gas usage for residential users (therms)
1b			Annual electricity usage for public users (KWh)
1c			Rate of change for public users of electricity
1d			Annual electricity usage for residential users (KWh)
1e			Rate of change for residential users of electricity
2	**ENERGY**	Increase usage of alternative energy	# of On-line Renewable Energy Projects
2a			# of Solar Electricity Interconnection Agreements
3	**ENERGY**	Track cost of Energy	Annual natural gas cost for residential users
3a			Annual natural gas cost for public users
3b			Annual electricity cost for residential users
3c			Annual electricity cost for public users
4	**FOOD**	Increase supply and distribution of locally produced food (100m radius)	amount of city acreage devoted to food production
4a			# of food outlets selling locally produced foods
4b			# of CSAs serving Bloomington customers
4c			# of Bloomington subscribers to CSAs
4d			# of vendors at local farmers' markets
6	**FOOD**	Track affordability of food; track sources of food for needy	Food cost as % of median household income
6a			# of free food sources/services for the needy

#	Category	Objective	Indicator
7	**HEALTH**	Increase access toaffordable health care	# of annual patient visits to affordabel/free health clinics
7a			annual value of service at affordable/free health care clinics
7b			# annual prescriptions filled at affordable/free health care clinics
7c			# of primary care providers per capita
8	**HEALTH**	Decrease rates of:	annual fataliy rates from disease and other causes
9	**HEALTH**	Increase access to affordable mental health care options	# of affordable mental health care facilities
9a			# of people served for mental health care issues in affordable health care venues
10	**JOBS/EMPLOYMENT**	Reduce unemployment/ underemployment rates	Unemployment rate
11	**JOBS/EMPLOYMENT**	Increase # of green jobs	# of green jobs
12	**JOBS/EMPLOYMENT**	Increase # of jobs paying at least city determined local living wage	% of jobs paying at least local living wage
13	**SHELTER**	Decrease % of substandard housing	% of rental housing that is substandard
13a			# of units/homeowners receiving HAND financing
14	**SHELTER**	Increase % of requested building permits incorporating sustainable practices	# of green development units
15	**SHELTER**	Increase supply of affordable housing	# of affordable housing units

#	Category	Objective	Indicator
16	**TRANSPORTATION**	Increase # of people using alternative transportation	# of companies offeringbiking/walking/ carpooling incentives to employees
16a			Rate of bus ridership annually
17	**TRANSPORTATION**	Reduce enviro impact of transportation	% of public transportation fueled by alternative energy sources
18	**TRANSPORTATION**	Track bus ticket costs	Bus ticket cost as % of median household income
19	**WATER**	Promote water conservation	Residential usage as % of avg avl supply
19a			Commercial usage as % of avg avl supply
19b			Governmental usage as % of avg avl supply
20	**WATER**	Track quality of drinking water	water contaminants levels
20a			# of local water bodies with fish advisory warnings
21	**WATER**	Track cost of drinking water	Water cost as % median income
22	**WASTE**	Track Local Waste Stream	tons of solid waste to landfill
23	**WASTE**	Track Local Recycling Stream	tons of recycled material
24	**Education**	Not fully reported in 2008	
25	**Participation**	Not fully reported in 2008	
26	**Recreation**	Not fully reported in 2008	
27	**Safety**	Not fully reported in 2008	
28	**Air**	Not fully reported in 2008	